

1	2	3	4	5	6	7	8
R	R	R	R	R	R	R	R
Y	Y	Y	Y	Y	Y	Y	Y
G	G	G	G	G	G	G	G

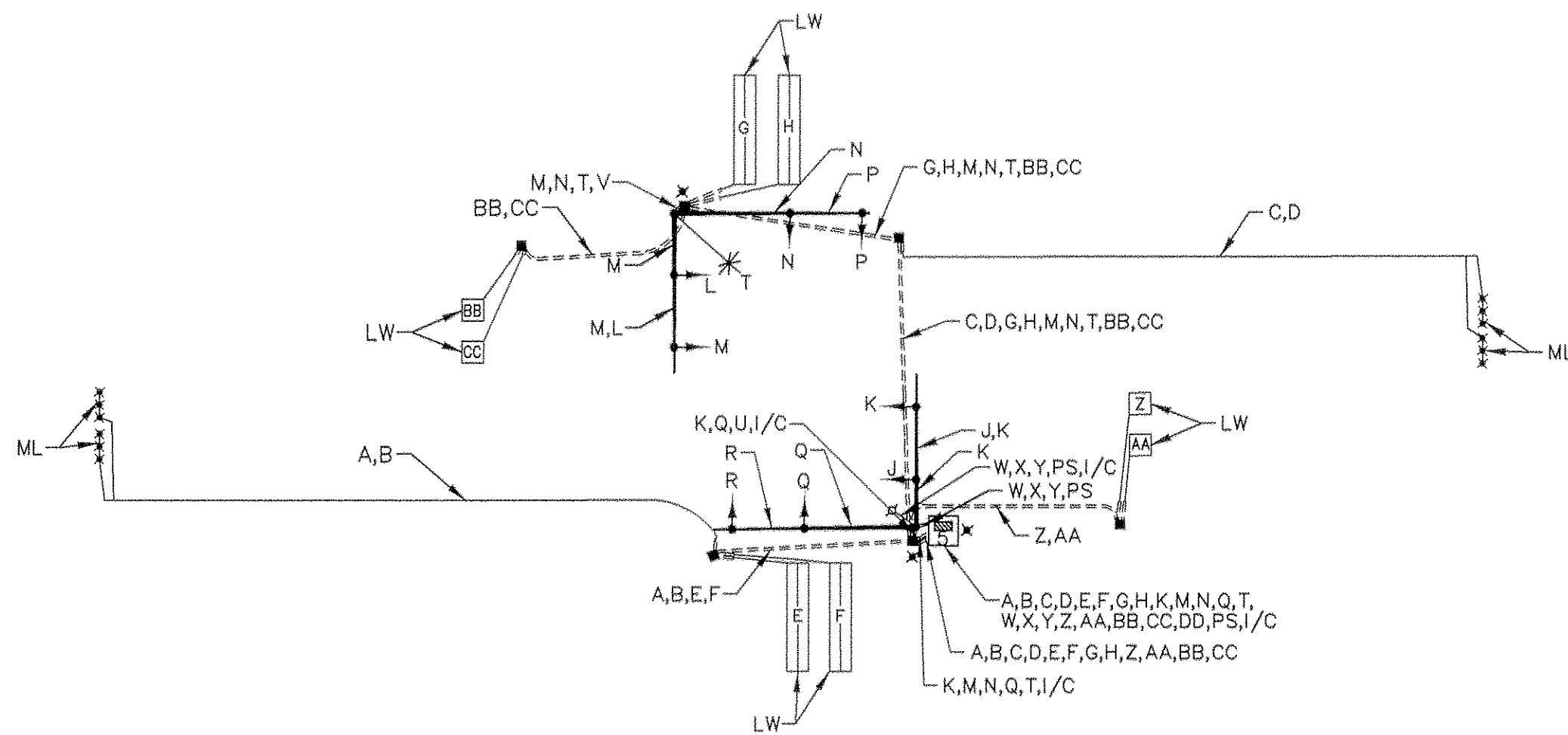
PHASE 2+6	G	G	G	G	R	R	R	R
2+6 CHANGE	Y	Y	Y	Y	R	R	R	R
PHASE 4+8	R	R	R	R	G	G	G	G
4+8 CHANGE	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FL Y	FL Y	FL Y	FL Y	FL R	FL R	FL R	FL R

WIRING LEGEND

- ```

A - MICRO-LOOP PROBE LEAD-IN
B - MICRO-LOOP PROBE LEAD-IN
C - MICRO-LOOP PROBE LEAD-IN
D - MICRO-LOOP PROBE LEAD-IN
E - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
F - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
G - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
H - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
I - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
J - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
K - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
L - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
M - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
N - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
O - 7 CONDUCTOR CABLE (NO. 14 A.W.G.)
P - 5 CONDUCTOR CABLE (NO. 14 A.W.G.)
Q - 2 CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
R - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
U - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
V - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
W - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
X - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
Y - 1 CONDUCTOR CABLE (NO. 4 A.W.G.)
Z - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
AA - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
BB - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
CC - 2 CONDUCTOR CABLE (ALUMINUM SHIELDED)
DD - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
PE - MISCELLANEOUS ELECTRICAL SERVICE
PS - 3/4"x10" GROUND ROD
 LOOP WIRE
LW - MICRO-LOOP PROBE
ML - MICRO-LOOP PROBE
I/C - INTERCONNECT WIRE

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## I. GENERAL

THE WORK TO BE PERFORMED INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT MD 150 (EASTERN BOULEVARD) AND WOODWARD DRIVE IN ESSEX, MARYLAND. IT IS ASSUMED THAT MD 150 (EASTERN BOULEVARD) RUNS IN AN EAST-WEST DIRECTION.

## II. INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR (4) PHASE FULLY TRAFFIC ACTUATED MODE. EASTBOUND AND WESTBOUND MD 150 (EASTERN BOULEVARD) WILL OPERATE CONCURRENTLY AND NORTHBOUND AND SOUTHBOUND WOODWARD DRIVE WILL OPERATE CONCURRENTLY.

A NEW EIGHT PHASE FULLY ACTUATED CONTROLLER WITH TELEMETRY MODULE HOUSED IN A GROUND MOUNTED CABINET WILL BE INSTALLED.

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

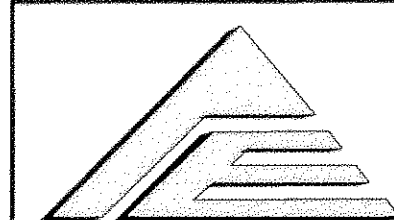
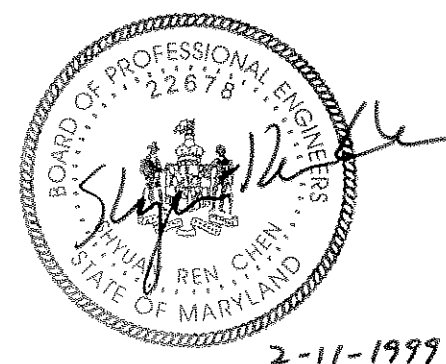
| QUANTITY | UNIT | SPECIFICATION<br>SECTION | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------|------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1        | EA   | SP                       | BASE MOUNTED LOCAL CABINET (SIZE 5)<br>WITH DETECTION EQUIPMENT WITH<br>8 PHASE ASC II CONTROLLER WITH<br>TELEMETRY AND OPTICOM PRE-EMPTION MODULE                                                                                                                                                                                                                                                          |
| 70       | SF   | SP                       | FLAT SHEET ALUMINUM SIGN--YELLOW, ORANGE<br>OR SILVER TO CONSIST OF--<br><br>2 EACH R3-3(3) "NO LEFT OR U TURN (TIME-DAY<br>MESSAGE)" SIGN (24"x36") MAST ARM MOUNTED<br><br>2 EACH D-3(1) "WOODWARD DR" SIGN (VAR.x16")<br>MAST ARM MOUNTED<br><br>2 EACH R3-5(L) "LANE USE CONTROL--LEFT ONLY"<br>SIGN (30"x36") MAST ARM MOUNTED<br><br>2 EACH D-3(1) "EASTERN BLVD" SIGN (VAR.x16")<br>MAST ARM MOUNTED |

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

| QUANTITY | UNIT | SPECIFICATION<br>SECTION | DESCRIPTION                                                                                  |
|----------|------|--------------------------|----------------------------------------------------------------------------------------------|
| 10       | CY   |                          | TEST PIT EXCAVATION                                                                          |
| 710      | LF   |                          | SAWCUTTING                                                                                   |
| 125      | LF   |                          | 24 INCH WHITE PERMANENT PREFORMED<br>THERMOPLASTIC PAVEMENT MARKING TAPE                     |
| 45       | LF   |                          | REMOVE EXISTING PAVEMENT MARKINGS--<br>ANY WDT                                               |
| 1        | EA   |                          | FURNISH AND INSTALL STEEL POLE WITH TWN<br>50'/60' MAST ARMS                                 |
| 4        | EA   |                          | FURNISH AND INSTALL MICRO--LOOP TRIPLE PROBE<br>SET (1000')                                  |
| 1        | LS   |                          | REMOVE AND DISPOSE OF EXISTING MATERIAL                                                      |
| 1        | LS   |                          | DELIVERY OF SALVAGED CONTROLLER AND CABINET                                                  |
| 1        | LS   |                          | REMOVAL AND SALVAGE OF CONTROLLER AND<br>CABINET                                             |
| 8        | EA   |                          | FURNISH AND INSTALL 12", 1 WAY, 3 SECTION<br>POLYCARBONATE SIGNAL HEAD--<br>MAST ARM MOUNTED |
| 15       | CY   |                          | FURNISH AND INSTALL CONCRETE FOR SIGNAL<br>FOUNDATION                                        |
| 20       | LF   |                          | FURNISH AND INSTALL NO. 6 A.W.G. STRANDED<br>BARE COPPER GROUND WIRE                         |
| 10       | LF   |                          | FURNISH AND INSTALL 2" (SCHEDULE 80) RIGID<br>P.V.C. CONDUIT (TRENCHED)                      |
| 15       | LF   |                          | FURNISH AND INSTALL 3" (SCHEDULE 80) RIGID<br>P.V.C. CONDUIT (TRENCHED)                      |
| 10       | LF   |                          | FURNISH AND INSTALL 4" (SCHEDULE 80) RIGID<br>P.V.C. CONDUIT (TRENCHED)                      |
| 130      | LF   |                          | FURNISH AND INSTALL 2" (SCHEDULE 80) RIGID<br>P.V.C. CONDUIT (SLOTTED)                       |
| 210      | LF   |                          | FURNISH AND INSTALL 4" (SCHEDULE 80) RIGID<br>P.V.C. CONDUIT (SLOTTED)                       |
| 45       | LF   |                          | FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE<br>NON--METALLIC CONDUIT FOR DETECTOR SLEEVE    |
| 135      | LF   |                          | FURNISH AND INSTALL ELECTRICAL CABLE--<br>1 CONDUCTOR NO. 4 (THHN/THWN)                      |
| 6        | EA   |                          | FURNISH AND INSTALL ELECTRICAL HANDHOLE                                                      |
| 70       | SF   |                          | INSTALL OVERHEAD SIGN                                                                        |
| 1930     | LF   |                          | FURNISH AND INSTALL 12--PAIR COMMUNICATION<br>CABLE--SELF SUPPORTING (OVERHEAD)              |
| 15       | LF   |                          | FURNISH AND INSTALL 12--PAIR COMMUNICATION<br>CABLE--JELLYFILLED (UNDERGROUND)               |
| 1        | EA   |                          | FURNISH AND INSTALL 250 WATT HIGH PRESSURE<br>SODIUM LAMP AND LUMINAIRE                      |
| 3        | EA   |                          | FURNISH AND INSTALL GROUND ROD<br>3/4" DIAMETERx10' LENGTH                                   |
| 1        | EA   |                          | FURNISH AND INSTALL CONTROL AND DISTRIBUTION<br>EQUIPMENT (120v/240v, 1 PHASE 3 WIRE SYSTEM) |
| 1085     | LF   |                          | FURNISH AND INSTALL ELECTRICAL CABLE<br>2 CONDUCTOR (ALUMINUM SHIELDED)                      |
| 115      | LF   |                          | FURNISH AND INSTALL ELECTRICAL CABLE<br>5 CONDUCTOR (NO. 14 A.W.G.)                          |
| 630      | LF   |                          | FURNISH AND INSTALL ELECTRICAL CABLE<br>7 CONDUCTOR (NO. 14 A.W.G.)                          |
| 235      | LF   |                          | FURNISH AND INSTALL ELECTRICAL CABLE<br>2 CONDUCTOR (NO. 12 A.W.G.) TRAY CABLE               |
| 1850     | LF   |                          | FURNISH AND INSTALL LOOP WIRE ENCASED IN<br>FLEXIBLE TUBING (NO. 14 A.W.G.)                  |
| 740      | LF   |                          | FURNISH AND INSTALL SAWCUT FOR SIGNAL<br>(LOOP DETECTOR)                                     |
| 1        | EA   |                          | FURNISH AND INSTALL 20' LIGHTING ARM ON<br>SIGNAL POLE                                       |
| 1        | EA   |                          | INSTALL EIGHT PHASE (FULLY ACTUATED)<br>CONTROLLER AND CABINET--BASE MOUNT                   |


B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

| QUANTITY | UNIT | SPECIFICATION<br>SECTION | DESCRIPTION                                                       |
|----------|------|--------------------------|-------------------------------------------------------------------|
| 1        | EA   |                          | FURNISH AND INSTALL 18' STEEL POLE WITH<br>TWIN 50'/60' MAST ARMS |



**A/E GROUP, INC.**  
ENGINEERS • PLANNERS  
181 E. Main Street  
Westminster, Maryland 21157  
A/E Job No. 98-367-002

[illegible]

 MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
*Office of Traffic & Safety*  
TRAFFIC ENGINEERING DESIGN DIVISION  
**MD 150 (EASTERN BOULEVARD) AND  
WOODWARD DRIVE**

LOG MI. 03015003.38

DRAWN BY: \_\_\_\_\_

CHECK BY: CE 3-

SCALE: \_\_\_\_\_

GENERAL INFORMATION SHEET

F.A.P. NO. \_\_\_\_\_

S.H.A. NO. \_\_\_\_\_

COUNTY BALTIMORE

DATE: FEBRUARY 09, 1999

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| PLAN |  |
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